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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,422	10/31/2001	Daniel G. Schkolnik	5038-147	9698

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EXAMINER

DINH, DUC Q

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/000,422	Applicant(s) SCHKOLNIK, DANIEL G.	
	Examiner DUC Q. DINH	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/20/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 27, 2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 5-9 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either specific asserted utility or a well established utility.

Because the claimed invention is not supported by a specific asserted utility for the reason set forth above, credibility cannot be assessed (i.e. the recited improved optical wheel in claims 5-9 is not used to improve any specific device and the benefit thereof).

4. Claims 5-9 also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claims 20 -23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original disclosure, when filed, does not disclose the “a light path defined by an axis intersecting the light source along which an intensity of the light is substantially a maximum” (claim 20) and “an intensity of the light passing through a line between the first and second sides that is substantially perpendicular to a centerline of the optical window is substantially equal to intensities of light passing through other lines between the first and second sides that are substantially perpendicular to the centerline of the optical window” (claim 21). Similarity, there is no support for the newly added limitations in claims 22 and 23. The disclosure, specifically Fig. 3, only teaches the intensity of the emitted light is brightness, the lens opening is smallest and vice versa...However the newly added limitations quoted above **were not disclosed in the original disclosure.**

The examiner examines the application based on the best understood of the claims languages.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 5-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (U. S. Patent No. 4,906,843), hereinafter Jones.

In reference to claim 5, Jones shown in Figs. 3-4, an improved optical wheel comprising an circular disc having a plurality of windows (74) arranged adjacent a periphery of the disc, the improvement comprised each of the plurality of windows being characterized by a substantially with moiré pattern effect shape. Jones does not discloses the window being characterized by a substantially the hourglass shape.

However, the claims do not cite “the window being characterized by a substantially hourglass shape” provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant’s invention to perform equally well with Jones because the window of Jones as discloses in Figs 3 and 5 have an improvement shape for an optical device, i.e.: combination mouse, optical scanner and digitizer puck.

Therefore, it would been obvious to one having ordinary skill in the art to change the shape of the optical window as desired as was judicially recognized with **In re Dailey, 149 USPQ 47 (CCPA 1976)** which recognizes that CHANGE IN FORM OR SHAPE of well known elements is normally not directed toward patentable object matter.

In reference to claims 6, 11 and 16, Jones discloses the optical window comprising a first pair of opposed sides disposed so that the ends of the opposed sides are spaced farther apart than the centers of the opposed sides in Fig. 3.

In reference to claims 7, 12 and 17 refer to the rejection as applied to claim 5 for the rejection applied for the shape of the window.

In reference to claims 8, 13 and 18, Jones discloses that in the computer mouse, light passes through sectors patterns may be made of alternating opaque and transparent (col. 5, lines 24-27).

In reference to claims 9, 14 and 19 the Jones discloses that each pattern 74 (see Fig. 3 and 5) is elongated to define a long axis being substantially congruent with the radius of the discs as claimed.

In reference to claim 10, refer to the rejection as applied to claim 5 for the shape of the optical window for an optical device. Furthermore, Jones discloses light sources 62 and 64, light detectors 66 and 68, light paths is defined between the light sources and the detectors; light emitted from a light sources 62 and 64 are detected by detectors 66 and 68, a (stroboscopic) discs 59 and 60 are interposed therebetween (claims 10 and 15) such that the light passes through the sectors 74 of the discs (see col. 5, lines 2—39) to create moiré pattern effect.

In reference to claim 15, refer to the rejection as applied to claim 5 for the shape of the optical windows. In addition, Jones discloses in Fig. 3-4, a circular disc (60) having a periphery, a plurality of windows (74) arranged adjacent to the periphery of the disc, (60) each of the plurality of window (70) comprising: a top and a base defining a height; and a first side and second side defining a width as claimed.

In reference to claim 20, Jones discloses an optical device (Fig. 1), comprising:

- a light source (64, 68) configured to emit light;
- a light path defined by an axis intersecting the light source along which an intensity of the light is substantially a maximum (the light path defined by an axis intersecting the light source is substantially maximum with the moiré pattern in Fig. 5c)

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a detector (66 and 68) disposed in the light path;

and an optical element (encoding wheel Figs. 3a and 3b) between the light source and the detector, the optical element including;

a plurality of optical windows (74), each optical window (in Figs. 3 and 4) having:

a first side;

a second side disposed opposite the first side,

the first and second sides shaped such that points on the first side and points on the second side are disposed at varying distances;

a minimum distance line defined by a point on the first side and a point on the second side having a substantially minimum distance between each other; and

a third side coupling an end of the first side to an end of the second side;

wherein, when the light path intersects one of the optical windows, the minimum distance line of the optical window substantially intersects the light path (see Fig. 5c).

In reference to claim 21, Jones discloses first and second sides of each optical window are shaped such that, when the light path intersects the optical window, an intensity of the light passing through a line between the first and second sides that is substantially perpendicular to a centerline of the optical window is substantially equal to intensities of light passing through other lines between the first and second sides that are substantially perpendicular to the centerline of the optical window; and the centerline of the optical window is disposed between the first side and the second side (Fig. 4 illustrating the light paths of light 62 and 64 intersect the optical windows in Fig. 3a and 3b an intensity of the light passing through a line between the first and second sides that is substantially perpendicular to a centerline of the optical window is

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substantially equal to intensities of light passing through other lines between the first and second sides that are substantially perpendicular to the centerline of the optical window as shown in Fig. 5c)

In reference to claim 22, Jones discloses the first and second sides of each optical window are shaped such that, when the light path intersects the optical window, an intensity of the light incident on a line across the detector that is substantially perpendicular to a centerline of the detector is substantially equal to intensities of light passing through other lines across the detector that are substantially perpendicular to the centerline of the detector (see rejection of claim 21).

In reference to claim 23, Jones discloses the first and second sides of each optical window are shaped such that when the optical element moves relative to the light path, a light intensity measured at the detector versus a position of the optical element has a shape substantially between a sinusoid and a square wave (col. 6, lines 50-63).

Response to Arguments

7. Applicant's arguments filed June 27, 2006 have been fully considered but they are not persuasive. With respect to the 112 First paragraph rejection, see the Rejection as applied to claims 5-9 above.

With respect to the 103(a) Rejection, Applicant argues the fact of Dailey can be readily distinguish from the present application... First, the claims do not cite "the window being characterized by a substantially hourglass shape" provides an advantage, is used for a particular

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purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with Jones because the window of Jones as discloses in Figs 3 and 5 have an improvement shape for an optical device, i.e.: combination mouse, optical scanner and digitizer puck. Therefore, It would been obvious to one having ordinary skill in the art to change the shape of the optical window as desired as was judicially recognized with In re Dailey, 149 USPQ 47 (CCPA 1976) which recognizes that CHANGE IN FORM OR SHAPE of well known elements is normally not directed toward patentable object matter.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In the instant case, because the claims do not cite "the window being characterized by a substantially hourglass shape" provides an advantage, is used for a particular purpose or solves a stated problem. Absent a showing of critically and/or unexpected result, it would been obvious to one of ordinary skill in the art to change the shape of the optical window as discussed above.

With respect to claims 20-23, see the 112 First Paragraph and Art Rejections as above.

The rejection is, therefore, maintained.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUC Q. DINH whose telephone number is (571) 272-7686. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DUC Q DINH
Examiner
Art Unit 2629



DQD
August 22, 2006